



## CAUTION: Medications!



**M**uch has changed in the decade since *Expression* last looked at the issue of seniors and medication. Medications have multiplied dramatically: there are now close to 22,000 prescription drugs on the Canadian market, an increase of one third since 1997. What's more, a dizzying array of over-the-counter drugs has become widely available in outlets ranging from specialty stores to supermarkets.

Yet despite the obvious benefits of many drugs, medication use by seniors continues to give rise to several areas of concern, including doctors' prescription practices, risks of adverse drug interactions arising from multiple medication use, the difficulties of complying with complex drug regimes, the soaring costs of medications, and poor communication between seniors and their doctors.

At the same time, several recent trends are affecting seniors' outlook on medications and their capacity to manage their own health: greater availability of health information, the advertising of pharmaceutical products to consumers, and rising interest in alternatives such as 'natural' products and remedies from other healing traditions. This edition of *Expression* looks at the trends, the issues and their impact on seniors' health. It also suggests a number of questions seniors should have answers to before taking any medication.

Ask your doctor. Consult your pharmacist. Your health is at stake.

**Don Holloway**  
NACA Member, Newfoundland



## NACA

The National Advisory Council on Aging consists of up to 18 members from all parts of Canada and all walks of life. The members bring to Council a variety of experience and expertise to advise the federal Minister of Health, his colleagues and the public on the situation of seniors and the measures needed to respond to the aging of the Canadian population. Current NACA members are:

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**National Advisory Council  
 on Aging**  
 Postal Locator 1908A1  
 Ottawa, Ontario  
 K1A 1B4  
 Tel.: (613) 957-1968  
 Fax: (613) 957-9938  
 E-mail: seniors@hc-sc.gc.ca

Website:  
[www.naca.ca](http://www.naca.ca)

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## ■ Knowledge – the best medicine

Seniors proportionately take more prescription and over-the-counter drugs than any other age group: they account for 12% of the population but use as much as 40% of prescription medications. That's not surprising, given the chronic ailments that often accompany aging. Today's seniors also use more drugs than past generations of seniors, in part because more drugs are available to treat a greater variety of conditions – often substituting for more invasive medical interventions.

In modern medicine, drugs play an ever-growing role in preventing and treating illness. Drugs have clear benefits for many seniors, offering the ability to treat conditions that would otherwise cause impairment, pain or death. But taking more than one drug – as many seniors do – multiplies the chances of noncompliance, interactions and adverse effects that can have extremely serious consequences. Knowing about your medication could be a matter of life or death.

## ■ Understanding risks

Like many medical interventions, drugs are not risk-free. Certain risks stem from the effects of the drugs themselves, while others can result from prescription and dispensing practices or misuse by patients.

**Why am I taking  
this medication?**

Problems issuing from doctors' **prescribing practices** include:

- inappropriate doses;<sup>1</sup>
- poor communication with seniors about what a drug is for;
- prescribing without full information about other medications being taken; and
- inadequate monitoring of drug efficacy and side effects.

Certain practices due to seniors' **poor understanding of the dangers** of inappropriate drug use can also cause serious harm:

- under-use or over-use;
- using a drug other than as directed;

<sup>1</sup> A Canadian Association on Gerontology forum identified practices such as over-prescribing of tranquilizers and under-prescribing of heart medications for seniors. ("National Forum on Closing the Care Gap", September 2000)



- premature termination of use;
- inappropriate continuation of use;
- combining a drug with other drugs, alcohol or certain foods;
- sharing of medications with others;
- self-medication without consulting a doctor or pharmacist; and
- prescriptions from several physicians without proper communication among them.

The consequences of misuse can be serious: people don't receive the full benefits of a drug and, even worse, they can actually become sicker. An estimated 50% of prescriptions are not taken properly, and as many as 20% of hospitalizations of people over 50 have been attributed to adverse reactions to medications or noncompliance with drug use instructions.<sup>2</sup>

How does this come about?

Often, family physicians aren't aware of all the medications patients are taking. When lists of

**Will this medication interact with other medication I'm taking?**

medications taken by seniors were compared with records kept by their doctors, discrepancies were found in 96% of cases, 60% of them involving over-the-counter remedies and 40% involving prescription drugs prescribed by other physicians.

Poor communication can also lead to poor compliance with a drug regime. Seniors, particularly those with vision or hearing impairment, loss of memory, and low literacy,

may find it difficult to stick to a prescribed regime if they haven't received proper instructions. Others may deliberately choose not to comply for many reasons such as: believing the medication won't be effective, concern about side effects, and improvement in the condition for which the medication was prescribed. Cost has also become a factor for many seniors.

Even when drugs are prescribed and taken correctly, side effects are a risk – dizziness, nausea and constipation are among the most common.

**Are there any side effects? Which ones should I report?**

Side effects can in turn cause further problems, such as falls and fractures. With many seniors taking multiple medications, the potential for interactions and side effects also multiplies. Assessing the nature and extent of side effects can be difficult among older adults, because adverse effects can mimic changes that sometimes accompany aging (tiredness, memory loss, confusion).

### What are seniors taking?

*Here's what a 1996-97 survey showed:*

- 62% used pain relievers at least once a month
- 33% used blood pressure medication
- 19% took heart medication
- 10% of women took hormones for menopause and osteoporosis.

(Source: Statistics Canada, *A Portrait of Seniors in Canada*, 3<sup>rd</sup> Edition, 1999)

<sup>2</sup> R.B. Coombs et al. *Review of the scientific literature on the prevalence, consequences, and health costs of noncompliance and inappropriate use of prescription medication in Canada*. Toronto: Health Promotion Research, 1995.



## ■ Smart strategies

Appropriate prescription practices, adhering to drug regimes, and monitoring drug effects and interactions all have a role in managing risk. The traditional approach focused on patients: making sure they took the right drugs at the right times, using tools such as pill dispensers, timers and alarms. But now the role of others – doctors, pharmacists and caregivers – is getting more attention. For example, when seniors are treated by multiple health professionals, the chances of taking more potentially interacting medications rise.

Investigators at **McMaster University** in Hamilton, Ontario, are working with seniors,

**Should I avoid certain foods or beverages?**

doctors and pharmacists to see whether closer monitoring

might help reduce side effects and other drug-related problems. Findings from the first phase of the *Seniors Medication Assessment Research Trial* (SMART) showed that seniors had an average of three drug-related problems, and more than 80% had at least one.

Physiological changes associated with aging can influence the way drugs affect older adults and doctors need to be aware of the latest research in this area. For example, we now know that smaller doses of some drugs can be just as effective and have fewer side effects than larger doses in treating some conditions in seniors. New products are introduced regularly and physicians need to know how they should be prescribed to seniors to ensure their safe and effective use.

Diversity within the senior age group is also relevant. Culture and ethnicity can affect how seniors interact with professionals, understand advice, and comply with instructions. For example, some prescription drugs may come with the instruction “take with milk”, yet for many ethnocultural communities, milk is not a regular part of the diet. Health professionals also need to recognize that among cultural groups perceptions vary about health, the nature of illness, and what constitutes effective treatment. **The Canadian Ethnocultural Council** has explored these issues extensively, producing a manual for health professionals and others who interact with seniors.<sup>3</sup>

**Are there alternatives to medication?**

## ■ Rising costs

Drug use has helped to reduce other health care spending by treating conditions that once required hospitalization. At the same time, drug costs for individuals have risen. With the move to more day surgery and home care, the cost of necessary drugs previously available in hospitals free of charge are now borne by patients. In addition, where most seniors once had government-sponsored drug insurance at little or no cost, in the last decade provinces imposed or increased premiums and co-payments. As a result, drugs account for an increasing proportion of household expenditures.

Just as serious, significant variations have emerged in how much seniors pay for drugs. Income testing means that in some provinces, seniors whose income is just a few dollars over the limit aren't covered. The

<sup>3</sup> Canadian Ethnocultural Council. *Use and Misuse of Drugs by Seniors: a cross-cultural education model*. Ottawa: 2000.



result: seniors with similar incomes and medical needs receive very different government-funded benefits and therefore face very different drug costs.

The concern is not just money, but health. Research led by **Dr. Robyn Tamblyn** showed that after the Quebec government changed its drug plan,

**Is there an efficient, less expensive medication available?** introducing annual premiums ranging from \$200 to \$750, fewer needed prescriptions were filled, resulting in a 111% increase in doctor visits, a 47% increase in emergency room visits, and a 66% increase in hospitalizations, institutionalizations and deaths. The study found that people continued to take drugs for acute symptoms such as pain but reduced their use of preventive drugs, such as those that lower cholesterol.<sup>4</sup> Other research shows that people reduce the amount of medication they take when the cost goes up, or stop taking it altogether. There's also evidence of sharing medications with others and taking drugs after their expiry date.<sup>5</sup>

## ■ Awareness and demand

A possible reason for rising drug use and costs: the flood of

**Do you have any patient information available?** information about drugs, especially through advertising in magazines and on television. Arthritis, depression, bladder control, menopause,

erectile dysfunction, hair loss and toenail fungus are among the many conditions targeted in ads that encourage consumers to "Ask your doctor about..." a specific drug. Much of this advertising occurs through American media and Internet sites which most Canadians have regular access to.

Canadians are responding: 15% of people surveyed in 2000 had asked their doctor for a prescription by brand name, up from 12% in 1998. There is also a link between computer use and brand awareness – half the people who asked for a drug by brand name had searched for information about medications online, mainly to learn about side effects. The overall numbers remain small, however; for example, just 11% of seniors had used the Internet to find health information or asked someone else to do it for them.<sup>6</sup>

Buying prescription drugs online has yet to become widespread: one survey found that of the 30% of Canadians who had used the Internet to find health information, about 3% had also purchased prescription medication online.

The source of these online purchases is not clear: online prescription services from Canadian pharmacies are not legal. Where Canadian pharmacy services are offered online, it is by existing 'bricks and mortar' drug stores offering a convenience for clients, who must still present a valid prescription at the pharmacy. U.S.-based Internet pharmacies number in the hundreds, however, despite growing concern about practices such as shipping drugs

<sup>4</sup> Robyn Tamblyn et al. "Adverse events associated with prescription drug cost-sharing among poor and elderly persons". *Journal of the American Medical Association*, 2001.

<sup>5</sup> W. J. Millar. "Disparities in prescription drug insurance coverage". *Health Reports* 10/4, Summer 1999.

<sup>6</sup> Price, Waterhouse, Coopers. *Health Insider* no. 3, 2000.



without a prescription. The risks of ordering drugs online are many: getting the wrong drug or dose, an adulterated product or no product at all. Internet pharmacies are not regulated, so drugs could be counterfeit, outdated, or sub-potent. A voluntary U.S. program, called VIPPS, offers legitimate online pharmacies a seal of approval; to date just five of the hundreds of sites have qualified for the VIPPS seal.

The Internet has brought some benefits, however, such as greater access to health information, encouraging the trend to self-care. Legitimate online pharmacies often provide links to reliable health information, and if properly regulated they could make obtaining products, information and price comparisons convenient, especially for people isolated by distance or disability.

## ■ Going natural

Explosive growth in pharmaceutical drugs has been matched, if not exceeded, by a burgeoning range of over-the-counter natural and herbal remedies. Health stores, specialty shops, pharmacies and even supermarkets have become sources for vitamins and mineral supplements, herbal products, traditional Chinese and other preparations, and homeopathic remedies.

Older Canadians are using these complementary remedies regularly, including vitamins, herbs and minerals.<sup>7</sup> The desire to take more responsibility for one's own health is understandable. Health literacy and self-care abilities are important determinants of health, but they need to be supported by accurate and accessible information. We see several issues:

- **Uninformed use** – In the first 6 months of 2000, an estimated 5 million Canadians – 24% of those surveyed – took a natural health product (NHP) instead of going to a doctor for a prescription. The percentage was even higher – 41% – among those who had taken three or more NHPs. In addition, 8% of NHP users substituted an NHP for a prescription given to them by a doctor – that's an estimated 1.3 million unfilled prescriptions.<sup>6</sup> Many people equate 'natural' with 'safe', but this is not necessarily the case. Consumers are taking a risk when they take a natural product without knowing whether one of its active ingredients could interact with a food or prescription drug.
- **Inadequate information** – Staff at stores selling natural and herbal remedies are not required to have special training or qualifications, yet many are advising on remedies that may be ineffective or even dangerous in some circumstances.<sup>8</sup>
- **Lack of regulation** – Few 'natural' products have been thoroughly and critically tested, so there is limited evidence to support claims about effectiveness or safety. Nor is label content regulated – you won't necessarily know what's in a product, and you have no assurance that what's on the label is also in the bottle. What's the recommended dose for your age and weight? Will the product interact with other drugs or foods? Are health claims substantiated by scientific research? Without regulation, there's no way for prudent consumers to answer these questions. Regulation would also deal

<sup>7</sup> Earl Berger. *The Berger Population Health Monitor*, surveys 21 and 22. Toronto: May 2000 and March 2001.

<sup>8</sup> "Jouer au docteur". *Protégez-vous* (consumer magazine). February 2001.



with the issue of unqualified people giving health-related advice.

The federal government recognizes Canadians' growing interest in alternative remedies, along with the risks created by unregulated manufacture and sale. **Health Canada** established the Natural Health Products Directorate in 1999, with authority to approve NHPs for the Canadian market. The Department will soon be introducing a regulatory framework for the manufacture and sale of NHPs, including medications.

## ■ Making medication work for you

The problems surrounding seniors and medication use are multifaceted, so the solutions must be as well:

- **Individual seniors** can ask questions to improve their understanding of the purposes and consequences of taking a drug; insist on the lowest effective dose; ask whether effective alternatives exist; provide physicians with a complete list of drugs (prescription and non-prescription) they are taking; and consult a physician when an adverse effect is suspected.
- **Physicians and other health care professionals** can communicate clearly and appropriately; take into account each senior's background and capacities; listen to concerns; offer strategies for managing drug use; and consider non-drug treatments. They can conduct periodic reviews of medications being taken as part of a preventive medicine approach. They can take time to explain a drug's purpose and side effects. They can recognize that cost may inhibit a senior from filling a prescription and ensure seniors understand

when and how to take a drug (for example, frequency, dosage and other instructions such as taking drug on a full or empty stomach).

- **Pharmacists** can repeat instructions and ensure that seniors understand the risks and side effects; check for possible negative interactions with other products taken by the patient; and make sure the medication package provided can be easily opened and used.
- **Governments** can sponsor research and the efforts of other organizations to promote safe and effective drug use. They can introduce computerized drug registries to control over-prescription and reduce the risks of multiple medications. Examples include British Columbia's **PharmaNet** and Alberta's **Pharmaceutical Information Network**.
- **Caregivers and family members** can arm themselves with information to support seniors' self-care and healthy lifestyle. The **Canadian Association for Community Care** is developing and testing a training and information program for seniors' informal caregivers about proper medication management for seniors receiving care at home.

Working on all these fronts will help seniors capture the benefits and reduce the risks of medication while enhancing their health and autonomy. ■





## For more information...

*Services to enhance safe drug use among seniors are available in most areas of Canada. To obtain information about services and programs in your area, check with your provincial seniors' organization, ministry of health, ministry responsible for seniors, college of pharmacists, or municipal public health department.*

*Knowledge is the best medicine.* Education program developed by **Canada's Research-Based Pharmaceutical Companies** to inform the public about the appropriate use of medications and the need for Canadians to become active participants in their own overall health care. (613) 236-0455 or <http://www.canadapharma.org/en/patient/06knowismed/>

*Medication Matters: How You Can Help Seniors Use Medication Safely* is a guide for health professionals and caregivers on communicating effectively with seniors on medication use. This kit and other tools pertaining to seniors and safe medication use can be ordered through **Health Canada's** Division of Aging and Seniors at (613) 957-7606, or downloaded from the web at: [http://www.hc-sc.gc.ca/seniors-aines/seniors/english/pubcat\\_e.htm#medication](http://www.hc-sc.gc.ca/seniors-aines/seniors/english/pubcat_e.htm#medication)

"When herbs and drugs don't mix", an article published in the September 2001 issue of *Chatelaine*, available at: <http://www.chatelaine.com>

## Online

<http://www.canadian-health-network.ca>  
A site developed by **Health Canada** in partnership with dozens of other trustworthy health-related organizations.

[http://www.hc-sc.gc.ca/hpb/onhp/welcome\\_e.html](http://www.hc-sc.gc.ca/hpb/onhp/welcome_e.html)  
to find out about the proposed regulatory framework for natural health products.

<http://www.cdnpharm.ca>  
The **Canadian Pharmacists Association** looks at the issue of online pharmacies and offers consumer tips.



**Don Holloway** has worked in the interest of seniors for many years. He is the past President of the National Pensioners and Senior Citizens Federation (NPSCF), Canada's largest and oldest seniors'

organization, and a trustee on the Health Care Board of Regional Hospitals in Newfoundland. His work with the NPSCF includes aiding the development of Canada-wide programs such as "Reducing the Risk of Medication Misuse and Overuse by Hard to Reach Seniors"; "Learning to Prepare for the Issues of Leaving One's Life"; and "Active Living". Mr. Holloway lives in Marystown, Newfoundland, and has been a NACA member since 1999.